acid is quickly concentrated by the steam, and thus rapidly occasions a strong corrosion of the lead. To meet this defect at the place where the pipe plunges into the acid, a leaden bell is blown on, opening upwards, and of rather larger diameter than the pipe itself. The outer leaden surface of the bell is still coated with a thin, damp layer of dust, but which is no longer heated by the steam.

Concentration by steam has been of late years widely adopted. No sulphuric acid is lost on account of the low temperature employed, and the process has the further advantages of cleanliness, of a very small consumption of coal, and of an important saving of labor.

(To be continued.)

Power of Electric Light.—Late experiments at St. Petersburg show that the power of the light may be increased by covering the carbon with a thin sheet of copper, and turning the cup towards the object to be illuminated. The most economical machine tried was that of Alteneck ,which, with a galvanized carbon of 10 mm. diameter, gave a maximum of 20,275, and a mean of 14,039 candles. The light was sufficient to make objects visible, for military purposes, at a distance of 3080 yards.—*Nature.* C.

Davyum: A New Metal.—Serge Kern announces his discovery in June last, of a new platinoid metal which he calls *davyum*, in honor of Sir Humphrey Davy. It is hard, silvery in lustre, malleable at red heat, readily soluble in aqua-regia and very feebly in boiling sulphuric acid, yielding a yellow precipitate with caustic potash. Sulphureted hydrogen, passed through a dilute solution of the chloride, yields a brown precipitate which becomes black upon drying. Potassic sulphocyanide, with the same solution, is colored red, and if the solution of davyum in KCyS is concentrated, a red precipitate is obtained. Sp. gr. 9·385 at 25° C. Kern thinks that in Mendelejeff's proposed classification of the elements, davyum is the hypothetical element placed between molybdenum and ruthenium, in which case its equivalent should be 100. It would then rank as the second confirmation of Mendelejeff's predictions, gallium having been the first. It is probably rare. The platiniferous sand does not contain more than ·00045 of davyum.—*Comptes Rendus.*